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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/721,114	11/25/2003	Steven Shepley	D-1182 R2	6189

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EXAMINER	
HESS, DANIEL A	

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 04/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/721,114	SHEPLEY ET AL.	
	Examiner	Art Unit	
	Daniel A. Hess	2876	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *31 January 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-53* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *30-44* is/are allowed.

6)☒ Claim(s) *1-29,45-49 and 51-53* is/are rejected.

7)☒ Claim(s) *50* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Remarks

Acknowledgement is made of applicant's claim for foreign priority based on 1/31/2005 response.

The examiner's earlier rejections are maintained. However, subject matter that the examiner previously indicated as allowable is rejected herein. This constitutes a partial change in position by the examiner, and thus this action is non-final.

The applicant is advised to study the 'Response to Arguments' section below, which gives a detailed view of the examiner's opinion.

Regarding particularly claim 12, the examiner maintains 112 rejection, because what is non-standard (see applicant's arguments on page 20 of response) can definitely vary over time and thus are not definite. Most things that are now standard, published and/or public were at one time new, not-yet-published, and not-yet-made-public.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In particular, the term "non-standard" is indefinite because the scope of what is standard can change over time. See the above remarks.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-11, 13-16, 18-26, 45, 49, 51-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coutts (US 5,563,393).

Re claim 1: See column 1, lines 35-60 of Coutts for an overview. See figure 1: an 'operator interface device' (hereinafter OID) 12 is shown, which an operator can use to interact with an ATM 10. Note that two embodiments are discussed (a) the ATM transmits its state to the OID unprompted, and (b) the ATM indicates its state in response to a query by the OID. For the sake of the instant claim, attention is drawn to (b), notably column 6, lines 15-28, wherein the handheld device requests diagnostic data. The conveyance of diagnostic data through a controller 45 to the diagnostic article / OID 12 is clearly shown in figure 2.

The applicant has argued that the term 'operative connection' in claim 1 does not mean necessarily mean 'direct contact.' Thus, based on the applicant's discussion, Enta (of record in

the previous action) is not required to remedy any deficiency of Coutts: Coutts' ATM is in 'operative connection' via radio with diagnostic article 12.

Re claim 2: Again, see column 6, lines 15-28.

Re claim 3: See column 5, lines 18-25 of Coutts.

Re claims 4 and 6: Coutts recites (column 3, lines 46-50), in addition to a security card, 'Any other suitable security means' may be utilized.

The use of secret codes is an established security tool for access to many systems, including atms, cell phones, and generally all communications systems involving encryption.

One would have been motivated to include this or any other security naturally to resist fraud.

Re claim 5: Coutts recites (column 3, lines 30-40):

> The various levels of instructions may be accessed by a **code number input into the device by the operator**, through the use of character recognition techniques as discussed above. Also an authorization card, which could be inserted into the device prior to operation, **or any other suitable security means**, may be utilised.

Secret codes have thus been explicitly recited by Coutts.

What is not explicitly recited is that the secret code of Coutts is date-dependent.

However, Coutts recites that "any other suitable security means" may be used and date-dependent password (i.e. security codes) have long been employed in computer security, as this examiner, who majored in computer science and worked in the field, can attest.

In view of Coutts' teaching and in view of a well-known security technique, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

include the old and well-known date-based security code because this makes compromising the code much more difficult.

Re claim 7: See column 3, lines 30-50 of Coutts: instructions are provided that correspond to service manual data.

Re claims 8: Coutts recites (column 3, lines 30-40):

The various levels of instructions may be accessed by a code number input into the device by the operator, through the use of character recognition techniques as discussed above. Also an authorization card, which could be inserted into the device prior to operation, **or any other suitable security means**, may be utilised.

Encrypted communications is a notoriously old and well-known communications technique, widely used in any systems that need to be secure, especially in systems involving money. Anderson et al. (US 4,186,871) is one example dating from 1980; tens of thousands of other examples exist.

In view of the notoriously well-known use of encryption in communications, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known encryption in the communications of Coutts because firstly Coutts suggested that "any other suitable security means" may be used and second, encryption can literally make it mathematically impossible for an attacker to read critical data in transit.

Re claims 9 and 16: The ability of a handheld device to interface with a computer has long been known. PALM Pilots for example have long used 'docking stations' or cradles: See for example Tseng et al. (US 6,364,697).

In view of such docking systems, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known interface with a computer in the diagnostic device of Coutts because a computer is more powerful and can provide such benefits as improved display and report printing.

Re claim 10: See column 3: An interface indicative of the 'state of health' of the ATM is brought up in response to a signal from the ATM. The interface is broadly a browser because it is software that allows a user to browse through manual information one piece at a time.

Re claim 11: This is generally the case: the interface software of the interface device receives indicia (i.e. data) indicating the state of the banking machine and the interface devices process this to provide state information and repair instructions to service personnel.

Re claim 13: See column 6, lines 15-30: The operator uses the device to query the machine. This data is provided to the CPU of the ATM by various sensors, as can be seen in figure 2.

Re claim 14: Column 5 (throughout) discusses how the handheld diagnostic devices provide instructions for remedial actions.

Re claim 15: The diagnostic article of Coutts is clearly intended to interact with ATM machines directly that have been equipped correspondingly, and not with other computer systems.

Re claim 18: There is output of diagnostic data in response to codes indicating particular service conditions. The term 'indicating significance of....' is confusing and is not granted patentable weight.

Re claim 19: Diagnostic data is stored on the ATM, where it is output upon query in at least one embodiment (column 6, lines 15-30). This diagnostic data will be communicated only with the diagnostic tool. Note that security features are present: see Coutts (column 3, lines 46-50). These security features will generally limit the output of diagnostic data to the time of data exchange.

Re claim 20: Coutts discusses (column 5, line 18) 'currency jamming' being remedied, which clearly has to do with transaction functions.

Re claims 21-25: These claims correspond to claims 5, 8, 9, 16 and 17: see applicant's discussion on page 20 of 1/31/2005 response.

Re claim 26: See discussion re claim 1, above.

Re claim 45: See discussion re claim 1, above. A primary difference is that in the present invention, 'the at least one controller' is operative to 'cause the...' atm to 'conduct at least one diagnostic test.'

A review of the various diagnostic measurements shown in figure 2 of Coutts, including for example the temperature sensor 36 illustrates that most of those tests are conducted 'on-the-fly.'

Re claim 49: See discussion re claim 1, above.

Re claim 51 and 52: Encryption and the use of secret codes have been discussed in detail re claims 6 and 8, above.

Re claim 53: This claim pertains to 'on-the-fly' tests which have been discussed in detail re claim 45 above.

Claims 17, 27-29, 46-48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coutts as applied to claim 1 above, in view of Simmons (US 6,765,593).

Re claims 17, 27 and 46: Coutts fails to teach that diagnostic data is stored on a CD Rom.

Simmons (column 5, lines 46-47) provides one of many examples of user assistance data being provided on a CD ROM.

In view of Simmons' teaching, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the old and well-known CD for storing manual data (or other related data) because a CD has large storage, and further, is updateable.

Re claims 28/29 and 47/48: These claims are similar to claim 17 except that instead of data being stored on a CD, it is stored on a DVD and a flash memory respectively. Both DVD and flash memory are data storage devices well known and commonly used at the time of the invention, which could easily be employed as substitutes for CD memory.

In the case of DVD, the motivation to use this is to achieve larger storage than a CD. In the case of flash memory, a motive is to achieve rewritability.

Allowable Subject Matter

Claims 30-44 are allowed.

Claim 50 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art of record known to the examiner fails to teach or fairly suggest that where there is an interactive device interfacing with the ATM machine in the manner recited in claim 30, such that the diagnostic data stored on the ATM machine in conjunction with diagnostic software stored on the ATM, operates using service data on the interactive device to display on the display device of the ATM diagnostic data concerning at least one operational characteristic.

Coutts (US 5,563,393) and Yoshida (US 5,253,167) each teach that diagnostic information is displayed on the external device that connects to the ATM.

Response to Arguments

Applicant's arguments filed 1/31/2005 have been fully considered but they are not persuasive.

The main argument that the applicant makes is that Coutts (US 5,563,393), which has been relied upon as a primary reference in the initial rejection of most claims by the examiner, fails to teach or suggest the storage and transmission of diagnostic data.

The examiner disagrees. See column 6, lines 1-15. A read sensor is present which stores a count of the number of times a card reader is used. This information is (a) diagnostic data that is (b) stored on the ATM machine. Regarding (a), this data is indeed diagnostic data because it is used to determine if and when the card reader needs to be replaced. Regarding (b), this data must be stored on the ATM machine because a count is not an instant measurement, but a tally

that must be stored and updated. Some measurements such as an amount of receipt paper might be measurably on-the-fly and thus would not have to be stored, but a count must be stored.

The specific language used by Coutts is very telling: As shown in column 6, line 6 of Coutts, "state of health" information is requested by the operator from the ATM. This certainly qualifies as diagnostic data.

The applicant further argues, including on page 26 of the applicant's response, that Coutts does not teach "a data store in the ATM that stores data concerning the transaction function device of the ATM." The examiner respectfully, but strongly, disagrees. The term 'transaction function device' is very broad and certainly the reader that reads the account number from an ATM card is a 'transaction function device.'

The applicant asks on page 26 of the arguments, "Where does Coutts' interface device (12) cause the CPU of Coutts to access stored data in the ATM? Where does the interface device of Coutts cause the CPU of Coutts to access stored diagnostic data in the ATM?"

Regarding the first question, this is very well shown in figure 2 of Coutts. All of the diagnostic data including card read data (which as discussed above must be stored) goes through a CPU 45 to interface with the communication means.

Regarding the second question, column 6, lines 15-28, Coutts clearly shows an embodiment wherein the interfaces obtains data such as number of card reads, which as discussed above is diagnostic, through making a data request.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel A. Hess whose telephone number is (571) 272-2392. The examiner can normally be reached on 8:00 AM - 5:00 PM M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on (571) 272-2398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

DH

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PRIMARY EXAMINER